



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/692,959

10/24/2003

Ronald L. Mahany

14407US02

1865

23446 7590 01/06/2010
MCANDREWS HELD & MALLOY, LTD
500 WEST MADISON STREET
SUITE 3400
CHICAGO, IL 60661

EXAMINER

NGUYEN, PHUONGCHAU BA

ART UNIT

PAPER NUMBER

2464

MAIL DATE

DELIVERY MODE

01/06/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/692,959	Applicant(s) MAHANY ET AL.	
	Examiner PHUONGCHAU BA NGUYEN	Art Unit 2464	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10,12-18,20-43 and 45-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10,12-18,20-43 and 45-51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Objections

1. Claims 10, 12-13, 18, 20-21, 27-28, 31, 33-34, 37-41, 45-49, 51 are objected to because of the following informalities: “operable to” or “capable of” is an optional limitation and should be replaced with a positive limitation to make the claimed language positively recited, i.e., claim 12, “operable to control” (line 2) or “capable of communicating”(line 3) should be changed to ---for controlling (line 2)--- or ---for communicating (line 3)--- respectively. Appropriate correction is required.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 10, 15-16, 18, 21, 23-24, 26, 27-39, 41-43, 45-49, 51 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over

claims 1-8 of U.S. Patent No. 5,682,379. Although the conflicting claims are not identical, they are not patentably distinct from each other because the application claims 10 and 18 merely broaden the scope of the patented claim 2 by rephrasing "a main radio network" and "a radio subnetwork" of the patented claim 2 to ---a main communication network--- and ---a radio network--- in the application claims 10 and 18. Likewise, the application claims 27-28, 31, 33-34, 37, 46-47, 51 merely broaden the scope of the patented claim 2 by eliminating "a main radio network" of the patented claim 2 and also by rephrasing "a radio subnetwork" of the patented claim 2 to ---a radio network--- in the application claims 27-28, 31, 33-34, 37, 46-47, 51.

It would have been obvious to one skilled in the art at the time invention was made to eliminate limitations that are not unnecessary for their invention and to rephrase elements so long as the unit or element under different name would perform the same function.

Also, it has been held that the omission of an element and its function is an obvious expedient if the remaining elements perform the same function as before. In re Karlson, 136 USPQ 184 (CCPA). Also note Ex parte Rainu, 168 USPQ 375 (Bd. App. 1969); omission of a reference's element whose function is not needed would be obvious to one skilled in the art.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 2464

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 10, 12-16, 18, 20-24, 26-30, 32-36, 38-43, 45-49 are rejected under 35 U.S.C. 102(e) as being anticipated by Grube (5,058,199).

Claims 1-9. (cancelled)

Regarding claim 10, 18, 38-39,

Grube discloses a transceiver/integrated circuit (repeater having transmitters 117&217 and 118& 218, figs.1-2) for use in a wireless network device (cell 1 or 2 communication system, 110-118 and 210-218, figs.1-2) that operates in a communication system that includes a main communication network (with a radio device 500, figs. 1-2) and a radio network (with other cell field units 101-104, 201-201 figs.1-2), the transceiver comprising:

at least one radio unit (117-118, 217-218) configured to communicate with the main communication network (with the radio device 500, figs.1-2) and the radio network (with other field units 101-104, 201-204);

wherein the transceiver/integrated circuit (repeater having transmitters 117&217 and 118& 218, figs.1-2) is operable to enable the wireless/mobile network device (cell 1 or 2 communication system, figs.1-2) to participate as a master device (i.e., communicating with other field units in figs.1-2 is a master-emphasis added) on the radio network (on cell 1 or 2 network between cell 1 or 2 communication system and field units), operable to control communications on the radio network.

Claims 11, 19, 44. (cancelled)

Regarding claims 12, 20, 40, Grube further discloses a processor (controller 110/210-fig.17) operable to control the communications of the at least one radio unit (117, 118, 217, 218) with the radio network (cell 1 or 2) and capable of communicating with the main communication network (to the radio link device 500, figs. 1-2).

Regarding claims 13, 21, 41, Grube further discloses wherein the wireless/mobile/integrated network device (cell 1 or 2 communication system) is operable to participate as a slave on the main communication network (with the radio link device 500, figs. 1-2).

Regarding claims 14, 22, 42, Grube further discloses wherein the main communication network comprises a wired communication network (wired to other repeaters 111-116, 211-216).

Art Unit: 2464

Regarding claims 15, 23, 43, Grube further discloses wherein the main communication network comprises a wireless communication network (communication between cell 1 or 2 communication system and system field units, figs.1-2).

Regarding claims 29, 35, 48, Grube further discloses wherein the transceiver enables the wireless/mobile/integrated network device (cell 1 or 2 communication system) to manage communications of a second wireless network device (102 system field unit, figs.1-2), that participates on the radio network (cell 1 or 2 network), with the wireless communication network (with the radio link unit 500).

Regarding claims 30, 36, 49, Grube further discloses wherein the transceiver enables the wireless network device (cell 1 or 2 communication system, figs. 1-2) to facilitate communications of a second wireless network device (102 system field unit, figs.1-2), that participates on the radio network (cell 1 or 2 network), with the wireless communication network (with the radio link unit 500).

Regarding claims 16, 24, 44, Grube further discloses wherein the transceiver comprises an integrated circuit (figs.1-2).

Regarding claims 26, 32, 45, Grube further discloses wherein the transceiver enables the wireless network device (cell 1 or 2 communication system, figs.1-2) to manage

Art Unit: 2464

communications of a second wireless network device (102 system field unit, figs.1-2) participating on the radio network (cell 1 or 2 network).

Regarding claims 27, 33, 46,

Grube discloses a transceiver (repeater having transmitters 117&217 and 118& 218, figs.1-2) for use in a wireless/mobile network device (cell 1 or 2 communication system, figs.1-2) that operates in a communication system (10-figs. 1-2) that includes a radio network (cell 1 or 2 network), the transceiver comprising:

a radio unit (117-118, 217-218) configured to communicate with the radio network (with other field units 101-104, 201-204 in cell 1 or 2 network);

wherein the transceiver (repeater having transmitters 117&217 and 118& 218, figs.1-2) is operable to enable enables the wireless/mobile network device (cell 1 or 2 communication system, figs.1-2) to participate as a master device (i.e., communicating with other field units in figs.1-2 is a master-emphasis added) on the radio network (on cell 1 or 2 network between cell 1 or 2 communication system and field units), operable to synchronize (by transmitting/receiving between cell 1 communication system and system field unit 102, the transmitters/receivers synchronized) communications of a second wireless/mobile network device (102 system field unit) participating on the radio network (cell 1 or 2 network).

Regarding claims 28, 34, 47,

Grube discloses a transceiver (2nd transmitter/receiver) for use in a wireless/mobile network device (communicator, fig.5) that operates in a communication system that includes a radio network (ADHOC network, col.6, lines 35-56), the transceiver comprising:

a radio unit (117-118, 217-218) configured to communicate with the radio network (with other field units 101-104, 201-204);

wherein the transceiver (repeater having transmitters 117&217 and 118& 218, figs.1-2) is operable to enable enables the wireless network device (cell 1 or 2 communication system, figs.1-2) to participate as a master device (i.e., communicating with other field units in figs.1-2 is a master-emphasis added) on the radio network (on cell 1 or 2 network between cell 1 or 2 communication system and field units), operable to manage communications of a second wireless network device (with system field unit 102) participating on the radio network (cell 1 or 2 network) with a third wireless network device (with other field units, figs.1-2) participating on the radio network (cell 1 or 2 network).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 2464

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 17, 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grube as applied to claims 10, 18 above, and further in view of Gladden (4,152,647).

Regarding claims 17, 25,

Grube does not explicitly disclose wherein the wireless/mobile/integrated network device (cell 1 or 2 communication system, figs. 1-2) is sized to be held by a user.

However, in the same field of endeavor, Gladden (4,152,647) discloses a light-weight, self contained repeater (col.2, lines 13-30). Therefore, it would have been obvious to an artisan at the time of the invention was made to implement Gladden's teaching to Grube's cell 1 or 2 communication system to make it portable, with the motivation being to provide extension of the range and versatility of communication systems by the use of small portable size of repeaters between transceivers of limited range and a base station.

8. Claims 31, 37, 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grube in view of Groenteman (5,398,257).

Regarding claims 31, 37, 51,

Grube discloses a transceiver (2nd transmitter/receiver) for use in a wireless/mobile network device (communicator, figs.4-5) that operates in a communication system that includes a radio network (ADHOC network, col.6, lines 35-56), the transceiver comprising:

a radio unit (117-118, 217-218) is configured to communicate with the radio network (with other field units 101-104, 201-204) using spread spectrum signals;

wherein the transceiver (repeater having transmitters 117&217 and 118& 218, figs.1-2) is operable to enable the wireless/mobile network device (cell 1 or 2 communication system, figs.1-2) to participate as a master device (i.e., communicating with other field units in figs.1-2 is a master-emphasis added) on the radio network (on cell 1 or 2 network between cell 1 or 2 communication system and field units), operable to control communications (with other system field units) on the radio network (cell 1 or 2 network).

Grube does not explicitly disclose wherein the transceiver is configured to communicate with the radio network using spread spectrum signals.

However, in the same field of endeavor, Groenteman discloses wireless transceiver 18 being a two way radio frequency spread spectrum communication device, col.2, lines 28-35. Therefore, it would have been obvious to an artisan at the time of the invention was made to apply Groenteman's teaching to Grube's system to achieve good communication, with the motivation being to more effectively achieve good communication without interferences.

9. Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Grube in view of Decker (5,375,051).

Regarding claim 50, Grube does not explicitly disclose wherein the integrated circuit comprises is part of a PCMCIA card.

However, in the same field of endeavor, Decker (5,375,051) discloses radio transceiver connected to a laptop PC via a PCMCIA modem, see fig.1. Therefore, it would have been obvious to an artisan at the time of the invention was made to apply Decker's teaching of PCMCIA modem to Grube's system to extract energy of media access device to turn on the device with the motivation being to conserve the battery power of the mobile device.

Response to Arguments

10. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUONGCHAU BA NGUYEN whose telephone number is (571)272-3148. The examiner can normally be reached on Monday-Friday from 8:15 a.m. to 4:45 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2464

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/PHUONGCHAU BA NGUYEN/
Patent Examiner, Art Unit 2464

/Ricky Ngo/
Supervisory Patent Examiner, Art
Unit 2464